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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/768,085 | 02/02/2004 | Toshimichi Minowa | 056203.44307C3 | 6560 |
| 23911 | 7590 | 10/07/2004 | EXAMINER | |
| CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300 | | | TRAN, DALENA | |
| | | ART UNIT | PAPER NUMBER | |
| | | 3661 | | |

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/768,085 | MINOWA ET AL. |
| | Examiner | Art Unit |
| | Dalena Tran | 3661 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 February 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 16-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 16-18,21,24-26,29,30-32, and 35 is/are rejected.
- 7) Claim(s) 19,20,22,23,27,28,33,34,36 and 37 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/2/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 16-37 are pending.
2. The prior art submitted on 2/2/04 has been considered.
3. The continuing data should be in the first line of the specification. Correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 16-17,24-25, and 30-31, are rejected under 35 U.S.C.103(a) as being unpatentable over Togai et al. (5,069,181) in view of Morimoto (4,784,021).

As per claims 16 and 30, Togai et al. disclose a control apparatus for a vehicle having means for setting a target driving shaft torque according to operation by a driver of vehicle or to an environmental operating conditions ahead of vehicle (see the abstract), means for detecting a vehicle speed of vehicle (see column 4, lines 20-31), means for controlling a transmission ratio of a transmission of vehicle by using target driving shaft torque and the vehicle speed (see column 5, lines 26-40; and column 7, lines 38-55). Togai et al. do not disclose control the transmission ratio by using at least detected actual deceleration rate. However, Morimoto discloses detecting operation of an accelerator pedal, detecting a deceleration rate, wherein when the operation of the accelerator pedal being zero, an actual deceleration rate of vehicle in a predetermined time period after the operation of the accelerator pedal becomes zero is detected,

and the transmission ratio of transmission is controlled by using at least detected actual deceleration rate (see columns 6-7, lines 3-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Togai et al. by combining control the transmission ratio by using at least detected actual deceleration rate for improving the running stability, safety, and drivability of the vehicle.

Also, as per claims 17 and 31, Morimoto discloses detects the actual deceleration rate of vehicle when the braking operation is increased in a predetermined time period after the operation of the accelerator pedal becomes zero, and controls the transmission ratio by using at least detected actual deceleration rate (see column 7, lines 22-29).

Claims 24-25, are method claims corresponding to apparatus claims 16-17 above. Therefore, they are rejected for the same rationales set forth as above.

6. Claims 18,26, and 32, are rejected under 35 U.S.C.103(a) as being unpatentable over Togai et al. (5,069,181), and Morimoto (4,784,021) as applied to claim 16 above, and further in view of Mimura et al. (4,989,149).

As per claims 18 and 32, Togai et al., and Morimoto do not disclose a target critical rotational speed. However, Mimura et al. disclose determines a target critical rotational speed at an input shaft of transmission, and a target transmission ratio is determined according to at least the target critical rotational speed (see column 4, lines 58-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Togai et al. by combining a target critical rotational speed to obtain the transmission ratio for a desired vehicle acceleration.

Claim 26, is method claims corresponding to apparatus claims 16-17 above. Therefore, it is rejected for the same rationales set forth as above.

7. Claims 21,29, and 35, are rejected under 35 U.S.C.103(a) as being unpatentable over Togai et al. (5,069,181), and Morimoto (4,784,021) as applied to claim 16 above, and further in view of Nakagawa et al. (5,517,410).

As per claims 21 and 35, Togai et al., and Morimoto do not disclose vehicle running load. However, Nakagawa et al. disclose calculating a running load of vehicle, and controls the transmission ratio by using detected actual deceleration rate and running load (see column 4, lines 12-27; and column 14, lines 13-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Togai et al. by combining calculating a running load of vehicle, and controls the transmission ratio by using detected actual deceleration rate and running load to assure satisfactory running stability and drivability of the vehicle over the entire ranges of the engine load and the vehicle speed, irrespective of a variation in the running load acting on the vehicle.

Claim 29, is method claims corresponding to apparatus claim 21 above. Therefore, it is rejected for the same rationales set forth as above.

8. Claims 19-20,22-23,27-28,33-34, and 36-37, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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. Nakamura et al. (4,663,991)

. Ohno et al. (5,605,131)

. Toukura (5,749,804)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 703-308-8223. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran



October 1, 2004